



## A4J:10.XXB2U

### VOLTAGE RATINGS

Part Number	V <sub>RRM</sub> , V <sub>R</sub> (V) Max. rep. peak reverse voltage		V <sub>RSM</sub> , V <sub>R</sub> (V) Max. non- rep. peak reverse voltage
	T <sub>J</sub> = 0 to 150°C	T <sub>J</sub> = -40 to 0°C	T <sub>J</sub> = 25 to 150°C
A4J:10.02B2U	200	200	300
A4J:10.04B2U	400	400	500
A4J:10.06B2U	600	600	700
A4J:10.08B2U	800	800	900
A4J:10.10B2U	1000	1000	1100
A4J:10.12B2U	1200	1200	1300

**All ratings and characteristics correspond to each one of the junctions in the bridge**

### MAXIMUM ALLOWABLE RATINGS

PARAMETER	VALUE	UNITS	NOTES
T <sub>J</sub> Junction Temperature	-55 to 150	°C	-
T <sub>stg</sub> Storage Temperature	-55 to 150	°C	-
I <sub>F(AV)</sub> Max. Av. current @ Max. T <sub>C</sub>	10	A	180° half sine wave
	65	°C	
I <sub>FSM</sub> Max. Peak non-rep. surge current	125	A	50 Hz half cycle sine wave Initial T <sub>J</sub> = 150°C, rated VRRM applied after surge.
	130		60 Hz half cycle sine wave
	115		50 Hz half cycle sine wave Initial T <sub>J</sub> = 150°C, no voltage applied after surge.
	119		60 Hz half cycle sine wave
I <sup>2</sup> t Max. I <sup>2</sup> t capability	110	A <sup>2</sup> s	t = 10ms Initial T <sub>J</sub> = 150°C, rated VRRM applied after surge.
	100		t = 8.3 ms
	78		t = 10ms Initial T <sub>J</sub> = 150°C, no voltage applied after surge.
	71		t = 8.3 ms
I <sub>t</sub> <sup>2</sup> Max. I <sub>t</sub> <sup>2</sup> capability	1105	A <sup>2</sup> s <sup>1/2</sup>	Initial T <sub>J</sub> = 150°C, no voltage applied after surge. I <sub>t</sub> <sup>2</sup> for time t <sub>x</sub> = I <sub>t</sub> <sup>2</sup> * t <sub>x</sub> <sup>1/2</sup> . (0.1 < t <sub>x</sub> < 10ms).
Mounting force	2.0	N.m	-



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### CHARACTERISTICS

PARAMETER	MIN.	TYP.	MAX.	UNITS	TEST CONDITIONS
$V_{FM}$ Peak forward voltage	---	---	1.30	V	Initial $T_J = 25^\circ\text{C}$ , sinusoidal wave, $I_{peak} = 15.7\text{A}$ .
$V_{F(TO)}$ Threshold voltage	---	---	0.85	V	$T_J = 150^\circ\text{C}$
$r_F$ Slope resistance	---	---	7.00	m	Use low values for $I_M < I_{F(AV)}$
$I_{RM}$ Peak reverse current	---	---	100	mA	$T_J = 150^\circ\text{C}$ . Max. Rated $V_{RRM}$
$R_{thJC}$ Thermal resistance, junction-to-case	---	---	3.50	$^\circ\text{C/W}$	DC operation
wt Weight	---	7(0.25)	---	g(oz.)	---

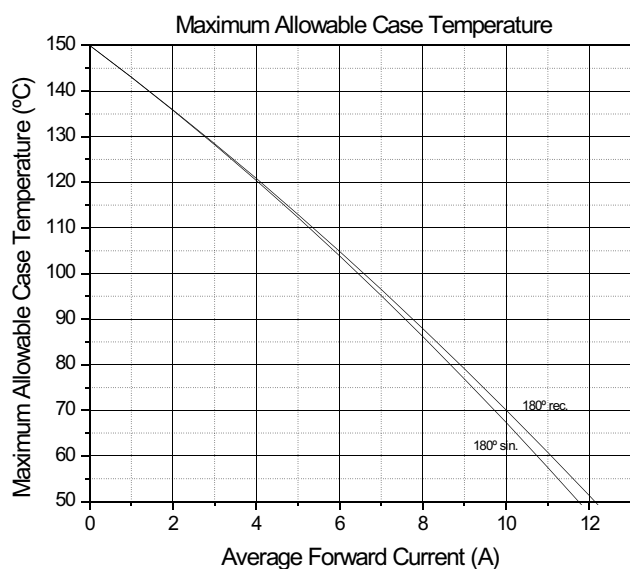


Fig. 1 - Current Ratings Characteristics

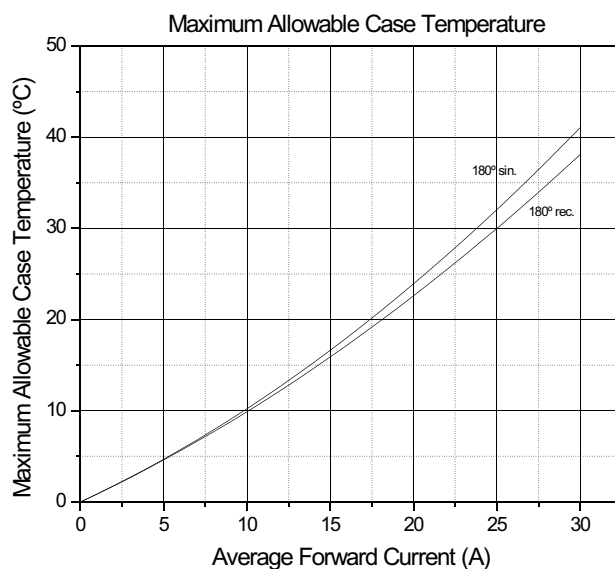


Fig. 2 - On-State Power Loss Characteristics

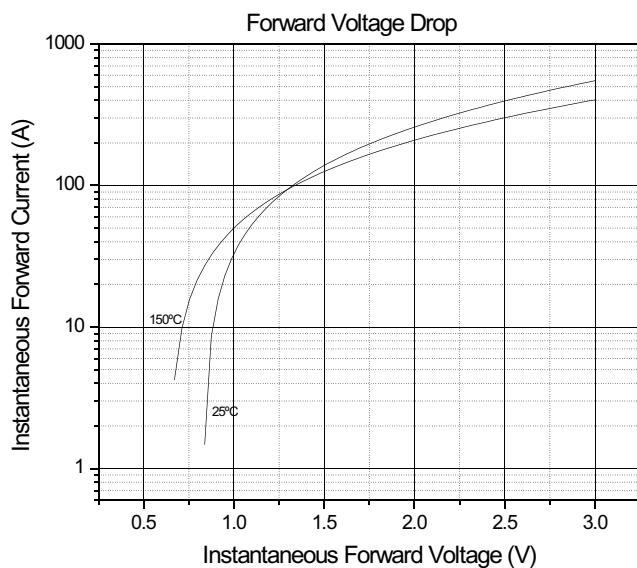


Fig. 3 - Forward Voltage Drop Characteristics

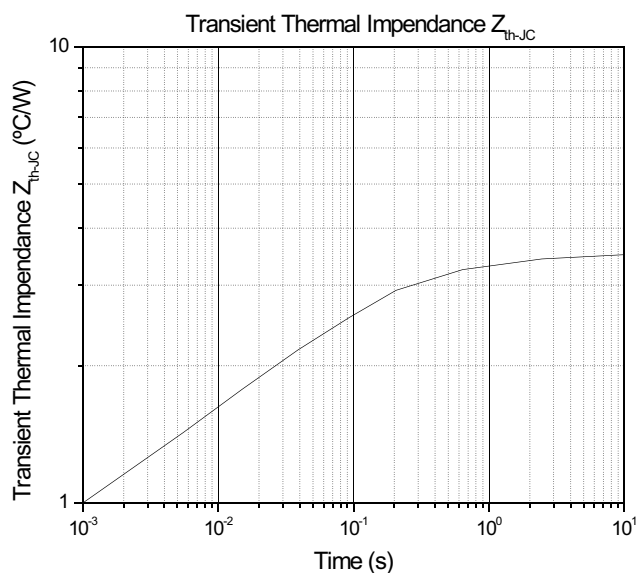


Fig. 4 - Transient Thermal Impedance Characteristics



### Fig. 5 - Outline Characteristics